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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

AUG 5 1922

REPORT FOR WEEK ENDING AUGUST 5, 1922.

AKRON:

All harvesting was completed including the Cereal Nursery. Threshing was started yesterday on the Barley fields of the sheep rotations. The Fallow field yielded 16 1/6 bushels per acre and the Rye field yielded 17 bushels. Both these fields seemed to promise heavier yields. English Morello cherry trees are being picked today. The new scales were set up and are ready for use as soon as the beam box arrives and is added. Fighting weeds has received due attention.

Maximum for the week 91; minimum 55; precipitation .37 inch.

ARDMORE:

Weather conditions throughout the week have continued unusually fovarable for plant growth for this season of the year. The recovery made by corn fields that appeared to be entirely destroyed by hail on July 1st is remarkable. Plenty of soil moisture with hot days and warm nights have been particularly favorable for the growth of this crop. Considerable corn for silage will be produced on the station. The cane crop promises to be good.

It is interesting to note that the second crop of alfalfa which was four to six inches high at the time of the hail storm has made very little growth since. It was generally believed that this crop would recover very rapidly and would make a good growth, expecially since there was more than a normal amount of moisture. In practice, however, very little growth has been made. On this station only a part of the fields will produce a second crop.

Native hay is very short. This was to be expected in view of the below normal amount of precipitation during the early spring months.

Maximum temperature 91, minimum 58; precipitation .67 inch.

BIG SPRINGS:

This has been another dry, how week with a mean maximum temperature for the week of 99 degrees, while the maximum temperature for the month averaged 95.

Cotton is putting on a good many bolls, and does not seem to be suffering any from the lack of moisture, but the milo, corn, and forage sorghums are firing badly.

Black Eye, Early Buff, and Early Red cowpea varieties were harvested this week for hay, and one plot of each was picked for seed. The cowpeas in the two-row alternates with Milo were also cut this week. They made an excellent growth, so considerable hay will be obtained from them. Grapes have started to ripen, but are not yielding very heavily. The R. W. Munson and Beacon varieties seem to be showing up better than any of the others at present.

Maximum temperature 103, minimum 76, precipitation 0

COLBY:

The week just closing has been interspersed with showers which totaled .96 inch of precipitation. The showers have revived up the sorghums and corn, so that their growth has continued unchecked. Milo plats are about 25 per cent headed, except listed plats which show but a few heads. Kafir is not showing heads.

Colby, contd.

Fallow plats were worked during the week. A few plats were hoed to get the weeds that the cultural tools missed. One strip of summer fallowed ground was packed with a disk set straight and weighted down.

Some self-pollenizing work was done with Colby Bloody Butcher corn during the week. The corn breeding work is showing up fine at the present time. All kafir, milo, feterita, and bean plats were cultivated with the shovel cultivator during the week. The same is true for sorghum varieties and field sorghums. All sorghums are making excellent growth and show fine prospects at the present time.

DALHART:

Another week has passed without netting any rain. Two good chances were missed during the week but the rain fell elsewhere. It is reported that a good rain fell about 35 miles east of Dalhart but it did not fall where it was not needed. Crops are suffering for moisture all over the Panhandle. The outlook for a good crop is getting poorer with each hot day.

Crops on the station are suffering for rain but are not in a dangerous condition yet. They are holding out wonderfully well for the dry weather that has prevailed. Most of the crops have a good healthy color and heading is progressing without apparent delay in many cases. Some of the crops are firing a little at the bottom but are still holding their own.

This week it was necessary to start shooting sparrows and blackbirds that were making a rush on the headed date plantings. They were invading these plats in such numbers that a few days unmolested they would have completely ruined the prospects for a yield. It is necessary to go to the field as early as 6 a.m. and begin shooting as they flock to the plats at dawn and begin their feasting. Since shooting was begun they are getting scarce at times. No field work was done during the week with the teams except mowing roadways. Some hoeing was done in scattered places where the cultivators did not get all the weeds. The men have been busy with odd jobs such as painting fence around the barn, painting the new shed for manure spreader, hoeing and getting things in general in order. All the machinery was rearranged in order in the implement shed.

Mr. E. F. Chilcott and Mr. E. H. Coles were station visitors during the week.

Maximum temperature 99, minimum 61; precipitation .08 inch; this moisture fell in two slight showers one netting .06, the other .02 inch. Even these little dews helped to freshen the crops a little.

GARDEN CITY:

Low temperatures and comparatively low wind velocity have prevailed throughout the week. All field crops are looking good. The rain on July 30th was very helpful to crops that had started to fire. Kafir is beginning to head, and all except the late seeding milo has headed. The first crop of Sudan has been cut for hay.

All early fall plowed wheat plats were plowed this week. One plat of cowpeas was turned under for green manure. Cowpeas are ripening and will likely be harvested this coming week.

Garden City, Contd.

Maximum temperature 97, minimum 64; precipitation .93 inch; evaporation 2.065 inches; average hourly wind velocity 6.6 miles.

HAYS:

The temperature has ranged between 63 and 100 degrees during the past week. Clouds and strong indications of storms appeared nearly every night. Four of the nightly storms left traces of rain, in all amounting to only .30 inch. This amount falling on a dry parched soil brought no relief to the suffering row crops. Corn is practically burned up. It is beginning to lose the foliage. Kafir continues to head but with difficulty. The Kafir on continously cropped plats is suffering most, only the marginal rows heading, about 50 per cent of the stalks either headed or the heads partly emerged, while in the interior of the plats there are but few heads showing. The plants over the plats are heading more evenly, there being about 50 per cent of the plants showing heads.

The field work on the project has consisted largely of plowing, listing, and disking. Soil moisture determinations were made on a number of corn, kafir, and wheat plats, also some fallow plats.

On the commercial fields plowing and listing has been given up for the present on account of the dry and hard condition of the ground. Some disking of wheat stubble is in progress. Hay making has been in progress most of the week, both alfalfa and Sudan grass being harvested.

HUNTLEY:

The past week has been hot and humid. Occasional light showers usually preceded by hard winds have given temporary relief from the oppressive conditions though they have lodged much of the heavy grain throughout this locality.

Oats and the early maturing plats of winter wheat and barley were cut early in the week. Flax is ripening rapidly and will probably be the next crop harvested. Spring wheat has begun to turn but will not be ready for the binder for several days. Corn has apparently recovered entirely from the effects of drought and has made an unusually luxuriant growth.

Maximum temperature 97, minimum 54; precipitation .54 inch.

MOCCASIN:

In general, the past week has been a continuation of the hot dry weather of the previous month. No rain was received and all crops are suffering seriously from lack of moisture. Spring wheat is burning badly and the yields of this crop will be somewhat less than normal. Flax and barley are nearly ripe but the latter has never completely headed out because of the drought. Early oats and winter wheat on the rotations have been harvested and the yields of the latter will be considerably above the average. Corn is tasseling and withstanding the drought in good condition but sunflowers are badly wilted.

Field work has been devoted to harvesting operations on all experimental projects and a 30-acre increase field of winter wheat. Increase fields for pure seed purposes and practically all plats on the rotations were rogued. Poison bran mash was again scattered over the experimental fields to control grasshoppers

Moccasin, Contd.

which are still very numerous despite the fact that over 1½ tons of poison have been distributed on the station during the month.

Mr. J. M. Stephens visited the station for a couple of days during the week

Maximum temperature, 90, minimum 46; precipitation 0.

LAWTON:

Hot, dry weather continued another week without interruption. Growing crops of all kinds suffered from the heat and for the lack of moisture. Many of the grain sorghums which are heading are in a critical stage of growth. Chinch bug injury is gaining ground very rapidly on all sorghum crops and indications of yields from mature crops are very meager. Broom corn, with the exception of the first date is a failure; Freed sorghum was harvested in the soft dough stage and practically all plats are badly fired. Plants withstand the grief up to a certain point and then lodge rapidly. Under such conditions it becomes necessary to watch the crops very closely.

Cowpeas on all rotation plats were harvested July 31. Practically all plats yielded a little better than one ton per acre of cured hay.

The M. C. Corn plats were also harvested on the last day of July. The crop was allowed to stand until all hopes of a yield of grain had vanished.

Maximum temperature from July 19 to August 4 inclusive was 102.8; maximum temperature for season to date 106, recorded August 6; precipitation for July 3.40 inches, .26 inch above normal. Of the total amount which fell, 2.12 inches were recorded after one rain on the 14th.

MANDAN:

Agronomy.

The past week has been favorable for field operations. Temperatures have been moderate. Rain came early in the week

The rainfall for July was 3.17 inches, or 0.93 above the 45-year mean for July. The total precipitation for May, June, and July was 8.65 inches, or 0.43 above the 45-year mean. The total precipitation to August first was 11.66 inches, or 0.18 below the 45-year mean.

Maximum temperature 90, minimum 54; precipitation .56 inch.

Harvesting of all small grain on the station was completed during the week, except some of the later varieties for the Office of Cereal Investigations.

Corn continues in excellent condition. It is not as near maturity as it has been at this time during some years past.

The second cutting of alfalfa was made on some of the older plantings. It will produce a fair crop.

Mandan, Contd.

Cooperative Grazing Experiment.

Native vegetation continued in good condition for grazing.

The steers during the month of July made higher average gains than during any July since the experiment started. This was no doubt because of better conditions of the vegetation and favorable weather.

The average gains in pounds per head were as follows. All pastures carry ten head of 2-year old steers, except the rotation, which is carrying sixteen head.

Pastures (acres)	100	70	50	30	Rot. (70)
Ave. gain per head	84	92	84	73	90.3

While the 30-acre bunch are getting short of feed their July gains were not greatly effected. It is usual for their July gains to be greatly reduced over the gains made in the other pastures.

Visitors during the week included Mr. John H. Martin, from the Office of Cereal Investigations; Mr. A. D. Deason, from the Branch of Public Relations, Forest Service; and Mr. H. D. Barker, Instructor in Plant Pathology, University of Minnesota, who is conducting investigations in Flax Rust.

It is planned to open the new "Victory" bridge, linking up the cities of Bismarck and Mandan, on August 6. The ceremonial opening will take place later.

The bridge being open will probably made an immense difference in the attendance at the Missouri Slope Fair, which is being held at the Mandan Fair Ground on the last five days of this month.

Aboriculture.

Hoeing and cultivating of all tree fields is being continued.

Spraying of poplars and ash, for poplar and blister beetle, is in progress. The former has done considerable damage to the older trees in eating the new growth and killing same from six to eight inches from the tips.

Mr. Cobb visited cooperating farmers in Burleigh County the latter part of last week, and continued to Valley City where the Northwest Nursery was visited. On the return a stop was made at Carrington where many of the Northwest poplars from 25 to 30 years old are growing in the town. These make very good trees, retaining their smooth bark until quite old except for a few feet at the base. The original planting on the old Butt's place west of Sykeston was also visited. Here trees are over 50 feet tall, and about six feet in circumference. These trees are probably 35 years old. Crops in this locality were good, though very full of wild oats. A very dry spot was encountered between Wilton and Mercer, where the grain was being mowed because of its shortness.

Mr. Emerson is inspecting in the vicinity of Havre, Montana and from Glasgow to Havre reports only fair crops with quire a little hail damage. Mr. Hansen is nearing the Black Hills and reports evidence of too much moisture, but good crops. Mr. Robert Wilson left the station on August 2nd,

Mandan, Contd.
for an inspection trip in Montana, Wyoming and South Dakota. He planned to be in the neighborhood of Havre, Montana August 2-4, and then to go on to Moccasin, Montana.

NORTH PLATTE:

Very favorable growing weather has prevailed for two weeks ending August 5. Total July rainfall was 4.69 inches. This is two inches above the normal for the month and makes up for the June deficit. Several good showers totaling a little more than an inch have fallen since August 1.

Corn is about 150 per cent of normal condition. With a few more good rains some record breaking yields should be secured. The crop is just coming into roasting ear stage now and every stalk has an ear.

Threshing on the station was completed on July 31. All early fall plowing on the D.L.A. plats has been completed. Weeds on plats left for late fall or spring plowing are presenting quite a problem.

John M. Stephens visited the station July 22 to 24, and E. F. Chilcott on July 24.

SHERIDAN:

Showers have been frequent during the week and the wet weather has interfered with field work to a considerable extent. A portion of the winter wheat in the Rotations has been harvested, but not all of the plats are ripe yet. A large part of the spring wheat in the check plats is ready to cut now. Several of the early spring wheat varieties, the rates of seeding, and the three earliest dates of seeding, of spring wheat were out during the week. All of the oats varieties, except the White Russian, also were harvested. Crested wheat grass was cut for seed today.

Alfalfa has made a fair second growth on many of the plats this season. The varieties in rows were mowed for the second time yesterday, and the rest of the crop is ready for the second cutting now.

The corn hit by hail is recovering very slowly. The final yield probably will be lowered to a considerable extent by the damage done.

Grasshoppers are still very thick about here and are doing considerable damage. A stronger mixture of the poison bait than has been used here before was scattered over the entire station during the week. Although quite a number of grasshoppers have been found dead, the poisoning does not seem to have near the effect that it did last year.

Cane, Sudan Grass, and millet are growing rapidly. All of these crops are heading now, and promise a good yield.
Maximum temperature 95, minimum 54; precipitation .77 inch.

TUCUMCARI:

With only 1.24 inches rainfall in June and 1.57 inches in July, this station is the dryest since 1918. The maximum temperature last month was below 95 on only eight days, the mean temperature being nearly three degrees

Tucumcari, contd.

above the eighteen year mean. Evaporation was 12.051 inches, the highest of any month since June 1918. Average wind velocity was also the highest of any since July 1918.

Fallows are showing up well, while the continuously cropped plats are in many cases firing badly. Many milo plats are firing so badly that practically no heads are being formed. Broomcorn is firing to a great extent.

Sudan in the north and south fields was cut this week and a portion of it hauled. Yields will be very light, approximately 1200 pounds per acre. Millet was cut and will make very light yield. Several plats of cowpea variety tests will be ready to harvest within a few days, while the increase plantings of Whippoorwill cowpeas will follow shortly.

Messrs. E. F. Chilcott, of Woodward, Okla.; E. H. Coles, of Garden City, Kansas; and H. J. Clemmer, of Dalhart, Texas, visited the station early in the week.

Maximum temperature 104, minimum 61; precipitation .26 inch; evaporation 2.661 inches; average wind velocity, 4.4 miles; mean temperature, 82.

WOODWARD:

From July 20th to August 2nd, fourteen days, the maximum temperature varied from 101 to 107, with the exception of July 30th, when the maximum was 96. We have had no precipitation excepting .01 inch since July 12th until today, August 5th, when we had 1.57 inches up to 8 a.m. All crops were beginning to suffer considerably from lack of moisture. Dwarf milo was beginning to head although only about 2 ft. in height. Broomcorn and sweet sorghum were probably suffering more than any other crops with the exception of corn. The cowpeas were suffering the least.

Work done during the week consisted of picking fruit, grading around the new milk house on the Dairy Project, fencing and putting in a new telephone line to the milk house.

Mr. E. F. Chilcott returned yesterday from an inspection trip during which he visited several of the stations. Mr. Coles, of the Garden City Station, returned with Mr. Chilcott, and visited the station on the 4th. Mr. Duncan Stuart, of the Dairy Division, visited the station on August 4th, and is here at time of writing.

Maximum temperature 106, minimum 63, precipitation 1.57 inches, evaporation 2.606 inches.

NOTE:-

Owing to introduction of new accounting methods in Office of Records, payment of July salaries for laborers will be delayed somewhat longer than usual.

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AUG 12 1922

REPORT FOR WEEK ENDING AUGUST 12, 1922.

AKRON:

Showers interfered with resuming threshing operations the fore part of the week. All fallow strips and all fallow and green manure plats were cultivated with spring tooth harrow or duck foot cultivator. Some corn varieties in the variety experiment were also cultivated with the Fowler surface cultivator to eliminate recent weed growth. Weeds have sprung into growth since the recent rains and are causing some worry. Potato rows and corn where the stands are thin are quite weedy. The orchards also were cultivated. Threshing was resumed Thursday. One increase field of oats was threshed, one field of Kanred from the sheep rotations was threshed and all the oats varieties on the Cereal Project. Beam box for the scales arrived Thursday, August 10th, and today the scales were completed and balanced.

Mr. H. N. Vinall of the Forage Office visited the station during the forenoon.

Maximum temperature 91, minimum 51; precipitation .69 inch.

ARCHER:

Due to a request from state officials the Superintendent went to Niobrara County the last two days of the week ending August 5th and the fore part of the present week. This accounts for the lack of a report for the week ending August 5th.

The past two weeks have been well supplied with rain. Most of the total, 0.93 inches, came on the sixth of the month. This was accompanied with considerable hail which did great damage to the small cereals. The corn leaves were shredded. Most of the corn is in the silk and the barley is ripe. The latter was so short that it was harvested with the mower to which a gathering apparatus was attached.

The last of the weeds have been removed from the plats and alleys and the preparation for fall seeding, harvesting and threshing are under way.

Maximum temperature 86, minimum 49; precipitation .93 inch.

ARDMORE:

There has been no precipitation during the week and the days and nights have been unusually warm. There still is plenty of moisture in the soil, and such conditions have resulted in splendid plant growth, especially corn and cane.

The corn crop, however, now shows the effect of the hail storm of July 1st worse than it did two weeks ago. It will produce considerable stover or silage, but not much grain. Most plats and fields are badly infected with smut. Sorghum crops have recovered very rapidly and this crop now stands four to six feet high. The plants are very thick in the rows. The crop is just heading, and will make 18 inches to 2 feet growth before harvest with favorable weather conditions.

Ardmore, continued:

Ten acres of Dakota Kursk millet were harvested during the week. The yield was approximately 3000 pounds per acre, and the quality of feed excellent. This variety of millet has given splendid yields at this station. It also has the advantage of being very leafy in character, making a much better quality of feed than many other varieties.

The second cutting of alfalfa was harvested during the week. Yields were far from satisfactory, varying from 600 to 1150 pounds per acre. One field of 30 acres was not considered good enough to cut.

Official visitors during the week were Mr. and Mrs. Sam Sloan, County Agricultural Agent of this county, Mr. A. C. Dillman and Mr. Robert Wilson.

BIG SPRINGS:

This has been another dry week, although the temperature has dropped considerably from that of the past three weeks. Ninety-six has been the maximum for this week and then a good breeze was blowing. A light shower of .22 inch fell on the night of August 5th, but was of no value other than to settle the dust for a short time. Several of the milo plats are burned beyond recovery, and will have to be harvested within the next few days. The F and G plats of the M. C. Sumac are also burning badly.

All cowpeas in the rotations were harvested this week; a good growth was made on all plats, so a fair yield of good quality hay should be obtained. The cowpeas from the two row alternate milo fields are being hauled in today, and are making about a ton of cured hay per acre.
Maximum temperature 96, minimum 66; precipitation .22 inch.

DALHART:

The past week has been a little more favorable than the several preceding weeks. On Saturday night, August 5th, a very good rain occurred, netting .39 inch and on the night of the 6th a small shower occurred netting .13 inch. Since these rains there has been nothing recorded although rains have occurred locally. Rains have been very streaked the past month. Some localities are still dry and suffering. Those that received rain were temporarily relieved but there has not sufficient moisture fallen to last long. Some hail fell at the station during the first rain but was only in strips. No hail fell close to the buildings but hit the fields in spots. Where it hit the crop leaves were cut pretty severely. Some of the crops were blown over during the severe wind but they have nearly all straightened up by this time. Temperatures have been more moderate since the rain.

Field operations have picked up since a little moisture was recorded. All the fallows were gone over with the spring tooth harrow which left them in good condition. All varities in the grain and forage sorghum block were gone over after the rain with the 14 tooth harrow, as was also the increase block of milo. All cowpeas on rotations were harvested during the week and are now in the cock. The plats to be seeded to winter rye on rotations 58 and 59 were plowed, also plat B of C.C. winter rye. Plat B was disced as soon as

the rye was removed and plowed after the first rain. Sudan on plat 83B was harvested this week. Plats 84-7-8 and 9A were disced after the rain. Plats F and G milo on C.C. were cultivated, also the variety peanuts.

There have been several visitors to the station the past week and all were surprised to see crops making such a good showing. Many compliments were passed on the order of things. Among the station visitors were Mr. Oste, Denver Agricultural Agent, and J. R. Edmonds, District County Agent Leader. They were surprised to see crops in such a healthy condition during these dry times.

Maximum temperature 97, minimum 61; precipitation 1.02 inches.

DICKINSON:

Hot dry weather during the last half of the week has matured grains very rapidly, a maximum temperature of 97 was recorded on the 12th. About half of the grain in the locality has been cut. Rust has developed on late grain so that the yield and quality will be reduced to some extent. However, the main crop is practically uninjured and the general average of grain is the best since 1915.

Oats on the Rotations were cut on August 2nd and 3rd and wheat on the 7th. Straw growth was heavy on both crops and the wheat was so badly lodged that on most plots it was possible to cut only one way. The flax in rotation 12, which was cut on the 11th, promises to be one of the largest yields for this crop. All increase grains have been cut with the exception of one block of wheat. Early varieties of field peas were cut on the 11th. Fallow and green manure plots were worked with the duck-foot on the 7th.

The thrashers have been rigged up and some brome thrashed on the 12th. Thrashing of grain will begin early next week. One of the universal tractors has been secured and the large separator will be used for the first time for several years.

Mr. E. G. Quamme, President of the Federal Land Bank, St. Paul, visited the station on the 11th. Mr. J. H. Martin, Office of Cereal Investigations, has been here for the past two weeks harvesting and thrashing material in the winter wheat nursery.

GARDEN CITY:

Growing conditions have been favorable during the past week. Three rains aggregating 2.49 inches were received during the first part of the week. For the most part this precipitation penetrated the soil. Low temperatures and low wind velocity have prevailed throughout the week.

Most of the week has been too wet for field operations. The potatoes were dug yesterday and yielded at the rate of about forty bushels to the acre. Fallow plats are being gone over with the spring-tooth harrow today.

Maximum temperature 97, minimum 59; precipitation 2.49 inches; evaporation 2.276 inches; average hourly wind velocity 6.4 miles.

HAYS:

The drought continues. Although no extreme high temperatures have been recorded, the temperature has ranged high during the week and hot winds have been in evidence three or four days. Maximum temperature 99, minimum 53. Precipitation .16 inch. This brought no relief to the crops, which are now suffering, some slightly, others very seriously.

Corn is completely dried up on the high land. The corn on the rotations will be harvested Monday. Sorghums are suffering less than the corn as usual, but these crops are needing rain very badly. The kafir on continuously cropped plats is badly burned, and because of the drought a very small amount is headed, except for the marginal rows. Many of the plants will not head, as the heads are dead in the boot. Kafir in the rotations where it follows a small grain crop is much better. Most of this is headed, and although the heads are small, the chances are still fair for an average yield.

Alfalfa is at a standstill. On the high land the growth is dead. On the bottom land it is green but is making practically no growth.

Work during the week has consisted largely in plowing some reserve land for wheat, cleaning up weeds around the edges where they were allowed to grow during the rush season, soil sampling and counting of stand of corn. Work on the commercial fields has consisted largely in harvesting of Sudan hay and discing for wheat.

HUNTLEY:

Harvesting operations have been continued on the Dry-Land fields at intervals throughout the week. The last plats of winter wheat were cut and the cutting of spring wheat is well started. The hot and dry weather has caused the grains to harden up rapidly and all are now ready for the binder.

Threshing has commenced on some of the dry farms in this locality. Yields are reported as good though somewhat below the returns anticipated. Winter wheat estimated at 40 bushels to the acre is making 28 and 30 bushels.

At present sunflowers are the only crop that is showing a need of moisture. With the exception of the plants around the borders of the plats sunflowers have made no growth for some time and appear to be wilted beyond recovery.

Station visitors during the week included Messrs. J. M. Stephens and A. Osengrug.

Maximum temperature, 98, minimum 53; precipitation .06 inch.

LAWTON:

Crop prospects have not improved any during the past week. Temperatures have been decidely lower, a small amount of cloudy weather obtained, and a few local showers were reported throughout the country, but crop conditions as a whole are very unsatisfactory. Drought and chinch bugs will cut down the yield of rough feeds very seriously. Cotton shows the effect of dry weather, especially on the upland. Hot, dry weather, however, has apparently held the boll weevil in check.

Lawton, Continued:

Pastures are rapidly drying up and stock water is not plentiful. Fields of cane that were broadcasted are pretty well burned up. Row stuff that was planted early will produce fairly well.

Birds began their damage to heading grain sorghum plats very early this year. With the exception of one or two places, the damage has been, so far, greatly minimized by patrolling the plats with a man and gun. This work is especially necessary early in the morning and late in the afternoon, or from four to seven P. M.

The maximum temperatures during the week ranged from 92 to 99, while the minimum temperatures varied from 58 to 77. The wind velocity averaged 4.6 miles per hour, and the weekly evaporation amounted to 2.167 inches.

MANDAN:

Agronomy.

Weather the past week has been about normal in temperature, with high winds on three or four days. On the sixth the wind averaged 18.5 miles per hour during the day; today the wind is high and hot.

Oats in the rotations has been threshed. The yields run from 25 to 100 bushels per acre in the main field. The average is 52.5 bushels. The low yield was on green manure and the high yield on fallow. Oats weigh from 26 to 32 pounds to the bushel.

Corn is in need of rain, but has not suffered greatly to date; it has curled some today.

The second cutting of alfalfa was hauled in during the week; the quality was excellent.

Cooperative Grazing Experiment.

The cattle are still on the 30-acre pasture and appear to be doing well. However, they are getting short of feed. Native vegetation has dried up during the past week but still is in fair condition for grazing.

Aboriculture.

Work with the cultivator and hoe has continued in all tree fields. Spraying of all poplars on the grounds for poplar beetles was completed, although the last generation has decidely been the worst insect pest this season. Some yound poplar blocks have been almost destroyed despite frequent sprayings.

Mr. Emerson was met by Mr. Wilson at Havre, Montana, and they proceeded inspecting plantings to Shelby, Montana, from which point Mr. Wilson left for Moccasin and Ardmore. Crops are not so good west of Havre, many fields having been ruined by hail. Mr. Hansen has inspected east from the Black Hills region, and is now along the Missouri River. He also reports considerable hail east of the Black Hills.

Mandan, continued:

Visitors of the week include Mr. J. Allen Clark and Mr. Moses N. Levine, both of the Cereal Investigations Office; Mr. Harry N. Vinall from the Office of Forage Crop Investigations; Mr. A. Osenbrug, Superintendent of the Judith Basin Substation, Moccasin, Montana, and Mr. R. L. Webster, Entomologist at the North Dakota Agricultural College, who arrived on the ninth and leaves this evening for Fargo. He has been studying the insect life at the Station, and identifying the specimens in the station collection.

Mr. J. M. Stephens returned to the station on the 11th from an inspection trip on the North and Central territory. Mr. W. P. Baird, Horticulturist, leaves tomorrow, August 13th, to attend the annual meeting of the Great Plains Official Horticulturists Association, held this year August 15th to 19th, at Ames, Iowa. He will probably stop off at the Minnesota State Fruit Breeding Farm, near Saint Paul, Minnesota, on his return.

NORTH PLATTE:

The week has been dry and clear throughout. Corn, which was in excellent condition early in the week, is showing sign of moisture depletion. The growth is very rank and moisture requirements are thus much above normal. If the month should continue dry the conditions of the corn crop will decline much more rapidly than it would under normal conditions of growth.

Some work has been done during the week computing yields of grain crops for the current year. Yields are considerably below the average of previous years, as shown in the table following:

Crop	Field	No. Plats	Yields 1922	Yields 15-yr Ave.
Oats	41	23	14.0	25.2
S.Wheat	41	19	4.3	12.8
Barley	41	5	12.3	18.7

SHERIDAN:

Harvesting of small grains has been completed with the exception of one plat of winter wheat in the Rotations which made a very late start in the spring and the three last dates of seeding of spring wheat. Of the three remaining Dates of Seeding, only the May 15th date will be harvested, the June 1st and June 15th seedings being complete failures.

Flax will be ready to harvest the first of the week; also millet and sunflowers.

Cane and Sudan Grass have been making a steady growth and there are prospects for heavy yields of these crops. The foliage of the corn has never fully recovered from the effects of the hail late in July. The corn shows prospects of better grain crop than usual, however. Quite warm weather has prevailed during the most of the week.

Sheridan, continued:

Mr. A. C. Dillman arrived here Thursday, leaving here today for Moccasin, Montana.

Maximum temperature 94, minimum 52; precipitation .06 inch.

TUCUMCARI:

Six showers this month have furnished .45 inch precipitation, and with the soil very dry down past the sixth foot this slight rainfall did no appreciable good. Cowpeas in rotations and in a good share of the increase strips have been cut and cocked, while the remainder of the increase strips and late variety plats will be ready to harvest early in the week. Yields will be light, doubtless about one-half the average yield of 2400 pounds per acre. Milo is in full head except on those plats where firing has been so severe as to prevent heading, while much of the kafir is in practically full head. Sudan has been cut and hauled and yields averaged about 1200 pounds per acre.

The larger corn stalk borer has done extensive damage, but as the drought has greatly injured all corn in this portion of the state, the damage done by the borer is hard to estimate. The drought and borer have combined to practically ruin most of the corn, while sorghums will also be very light in yield, even where the plants survive and mature. Some fields have been abandoned, farmers considering that further cultivation would be simply wasted labor.

Maximum temperature 99, minimum 64; precipitation .19 inch; average wind velocity 4.6 miles per hour; evaporation 2.358 inches.

Precipitation the past eleven and one-half months totalled 10.53 inches or 6.97 inches below the mean annual precipitation.

WOODWARD:

We had another good rain this week of about one-half inch making a total of 2.16 inches since August 4th. Practically all of the crops have recovered from the effect of the drought and are making very rapid growth.

Work during the week has consisted of cultivating, discing and plowing for wheat and rye. Some peaches and plums, and several hundred pounds of grapes have been picked. One day was spent in budding persimmons and some plums are being budded today.

Maximum temperature 101, minimum temperature 64, precipitation .59 inch.

Average wind velocity 4.7 miles per hour; evaporation 2.18 inches

NOTE:

Careful attention is invited to following memorandum received from Dr. W. A. Taylor, dated August 17, 1922, and also Circular No. 76 of the Bureau of Budget referred therein:

Note, continued:

"Gentlemen:

I am inclosing herewith copy of Circular #76 of the Bureau of the Budget, which has been forwarded by the Secretary with the request that copies be supplied to all field stations with instructions that the officials in charge observe the requirements of Circular #76 to the letter. If you are experiencing any difficulties in procuring fuel, please advise us promptly so that we may communicate with the Federal Fuel Distributor with a view to securing relief.

Very sincerely,

(Sgd) Wm. A. Taylor

Chief of Bureau."

"Circular 76.

PROCUREMENT, DISTRIBUTION, AND CONSERVATION OF COAL BY THE DEPARTMENTS AND ESTABLISHMENTS.

TO THE HEADS OF DEPARTMENTS AND ESTABLISHMENTS:

1. The coal situation demands that governmental agencies exercise the utmost economy in the use of their existing coal stocks and that their requirements in excess of these stocks be curtailed to a minimum so as to conserve the supply of coal available for the country in general. It also demands that the Federal Fuel Distributor, appointed by the President, have the full cooperation of the departments and establishments in carrying into effect such policies, rules, and regulations as he may prescribe to meet the general coal situation.

2. During the present period of coal shortage heads of departments and establishments will postpone the initiation of any further purchases of coal except such purchases as are absolutely necessary to meet current demands, as distinguished from laying in stocks of coal. They will also survey the coal consuming agencies of their departments or establishments for the purpose of reducing to a minimum the consumption of coal by suspending or curtailing the operations of these agencies wherever possible.

3. Heads of departments and establishments will keep the Federal Fuel Distributor, 718 Eighteenth Street, N. W. Washington, D. C., advised as to the general coal conditions as they exist within their respective departments and establishments, and will carry into effect to the fullest extent possible such rules and regulations as the Federal Fuel Distributor may prescribe to meet the present coal situation.

By direction of the President:

H. M. LORD

Director of the
Bureau of the Budget"

AGRICULTURAL
SEP 6 1922
BUREAU OF

WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

AUG 19 1922

REPORT FOR WEEK ENDING AUGUST 19, 1922.

AKRON:

Threshing shared first attention with the early fall plowing of the rotation plats. Oats, spring wheat, and winter wheat threshing was completed on the rotations. Kanred from the fallow plat on the sheep rotation also was threshed. Plowing was started on the rotation plats Thursday. Ground is plowing in nicely. Nursery threshing has been in progress since the middle of the week. High yield of spring wheat was obtained from M.E.L., 12 bushels per acre. Low yield 2.3 bushels from M.C.G. Only a few plats of winter wheat were threshed. The best appearing plat yielded but three and one-third bushels per acre. High yield of oats was 40.6 bushels per acre obtained from M. C. Fallow.

The temperature averaging 90° or above for the past eight consecutive days was broken yesterday. Corn is filling well and indications now point to one of the best corn seasons in the history of the station.

Mr. E. B. Brown left the first part of the week. Mr. C. W. Warburton is visiting the station today. Professor Alvin Kezer of the State Agricultural College visited the station yesterday.

Maximum temperature 96, minimum 58; precipitation 0.

ARDMORE:

Dry weather is beginning to have an effect on all crops. There has been no precipitation since August 3, and the only reason that all crops have not suffered materially for the lack of moisture was the more than normal amount of rain during the month of July. Corn is now maturing very rapidly and will be ripe enough for silage within two weeks. Cane is making very little growth.

The wet weather during the month of July resulted in an unusually heavy weed growth. Weeds on the plats and small field are the worst in the history of the station. They are being cut out with hoes as rapidly as possible.

BIG SPRINGS:

Although several good rains have fallen in various parts of the county, this week, the station and immediate vicinity has been favored with only a few very light showers. They were all so light that they merely settled the dust for the time being.

All the milo in the rotations, with the exception of that on fallow, has burned considerably. Many of the plats had started to go down, so were harvested this week. The rest of them will probably have to be cut next week. The other sorghums are firing badly, and it is doubtful if rains now would help anything but possibly some of the late maturing feeds.

Maximum temperature 98, minimum 65; precipitation 0.

CHEYENNE:

The week has been marked by a rather humid atmosphere with considerable precipitation. Precipitation was recorded for the 13, 15, 16 and 17. The rainfall on August 16 amounted to 0.50 inch with a total of 0.61 inch for the week.

The wheat is about ready to harvest and the oats are beginning to turn. However, both crops will be very light. The corn is doing very good considering that it was severely damaged by hail. If no further damage occurs an average crop will be secured. The potato crop is again beginning to make growth after the hail damage.

The work at the station has consisted in cutting and putting up hay. At present there is about 12 acres of millet hay down with some oat hay in shocks.
Maximum temperature 88, minimum 50; precipitation .61 inch.

COLBY:

Weather conditions remained warm and dry during the two weeks period just closing. A total of 1.09 inches of precipitation has fallen in the present month; it has come in five separate showers and with the exception of .69 inch on the third, has not been enough to do any good. Sorghums are beginning to dry quite badly in spots, and the fall plowed milo appears to be suffering the worst. Fallow milo looks good at the present time. A few farmers have harvested sorghums rather than see them dry out or run the chance of getting moisture.

Maximum yields of winter wheat were not as large as those of the previous season. Winter wheat yields on the project were from 7.7 bushels after milo to 34.5 bushels on fallowed ground. The average yield of all the plats was 22.4 bushels. The quality of the wheat was not very good, the test running from 53 to 59 with the bulk of the project testing 55 or 56. The yield was cut down by the dry weather in June which caused the wheat to dry out rather than ripen naturally. In the method of fallow series the yields were greatest on the most intensive cultural treatment and are in proportion to the amount of preparation of the soil.

Corn yields are not going to be as good on the fall plowed as on the spring plowed plats from present appearance. Corn is rapidly showing the effect of the drying weather.

GARDEN CITY:

The past week has been hot and dry. The sorghum crops are beginning to burn, especially those that were drilled.

All the cowpeas in rotation were cut for hay and are now curing in the shock. Two plats of millet and one of Sudan were cut for hay. All sorghum plats in rotation were cultivated with a one-horse cultivator. This cultivation was necessary on account of the volunteer wheat. It has been necessary to cultivate nearly all of the fallow plats in order to kill the wheat coming up on them.
Maximum temperature 98, minimum 59; precipitation 0.

DALHART:

The past week has been quite sultry with no cloudy days except a part of two days. There was very little wind movement during the week. Friday at about 5:00 P.M. a heavy cloud came up from the east and presented this section with a good rain. It is reported that the rain covered only a narrow strip. This rain totaled .86 inch on the station gauge.

Crops have suffered severely here the past week. Some have turned a sickly color all over, while others have burned from the bottom upward to about half way. Some of the crops are looking as fresh as though there had been plenty of rain. The later planting is making the best showing on most of the crops this year. The rain that occurred last evening may do more harm than good if the weather turns hot and sultry again. Nearly everything is heading at this time.

HUNTLEY:

Harvesting of small grains in the rotations was completed on the 15th. A few plats of wheat in the variety test and miscellaneous experiments are still too green to cut though the hot, dry weather of the past week has hastened their progress toward maturity.

Corn is again showing the effects of drought and many of the leaves are drying up. The grain, however, appears to be filling nicely and a good crop is in prospect. Grasshoppers are doing some damage to corn and other vegetation that is still green and poisoned bran mash was scattered over the more heavily infested areas on the dry-land fields. Much of this work has been done by Mr. Lockwood of the U. S. Bureau of Entomology who is conducting a series of experiments with various poison mixtures.

Maximum temperature 102, minimum 46; precipitation, Trace.

JUDITH BASIN:

The weather during the week has continued to be unfavorable to crop growth. Several light showers were received but the precipitation was not sufficient to be of any benefit whatever. Corn is suffering seriously from lack of moisture and is rapidly drying up with the formation of but a very few ears of grain. Sunflowers, potatoes, and garden crops are also showing the effect of the continued dry weather and are wilting badly.

Field work has been devoted to the rogueing and harvesting of increase fields of barley and spring wheat and harvesting of most of the plats of spring wheat on the rotations. With the exception of a comparatively small amount of spring wheat and barley, the harvesting of all grain crops at this station has been completed.

Large numbers of grasshoppers have migrated apparently to the experiment station from surrounding fields and are doing a great deal of damage. A number of Caragana, gooseberry and currant bushes about the buildings have been completely defoliated and these pests have extensively injured the corn on the rotations. Two tons of poisoned bran mash have been distributed on the station during the past month and although an enormous number of grasshoppers have been killed, it has been practically impossible to control the pests.

Judith Basin, contd.

Visitors during the week were Mr. J. H. Martin, Mr. A. C. Dillman and Mr. N. F. Woodward.
Maximum temperature 90, minimum 41; precipitation .19 inch.

MANDAN:

Agronomy.

The past week has been hot and dry. High hot winds prevailed on two days. The temperature was 100 or above on three days.
Maximum temperature 101, minimum 49; precipitation .07 inch.

Wheat and barley in the rotations were threshed early in the week. Threshing has been discontinued for the present because of other work on the station.

Wheat yielded from 10 to 34.5 bushels per acre. The average will be between 20 and 25. The weight per bushel is about 60 pounds. In the continuous cropping plat A made 19.5, B, 12.2 and C, 29.0 bushels per acre.

Barley made from 5 to 59 bushels per acre. The grain is of fair quality.

Corn, which ten days ago gave promise of as good a yield as any year since the station started, has been dried up badly by the hot winds. The yield has been reduced from 25 to 50 per cent. The fall plowed plats were hit the hardest. Some of the corn will no doubt have to be harvested next week. Seed corn is ready for picking now.

Fallow plats were again worked with the duck foot cultivator.

Annual sweet clover was harvested for the Office of Forage Crop Investigations.

Cooperative Grazing Experiment.

Native vegetation has burned up badly during the week.

The Rotation steers have been moved from Division B to A. They made fair gains during the first half of the month. The 30-acre steers are still gaining on very short pasture.

Visitors of the week included Mr. Robert L. Davis, from the Office of Fibre Plant Investigation, and Miss Ednah Fleming from the Office of Dry Land Agriculture.

Aboriculture.

Hoeing and cultivating has continued in all tree fields.

Mr. Wilson returned from visiting tree plantings at Havre, Moccasin, Sheridan and Ardmore stations. Mr. Emerson is in the neighborhood of Great Falls, working towards Judith Basin. He reports that crops were not so good in the northwest corner of Montana east of the mountains, but better again as he proceeded south. Mr. Hansen has been in the Pierre and White River country in South Dakota, and has reported considerable rain, with fine crops. Threshing is in full blast with wheat going from twenty to thirty bushels to the acre. He is working towards southeastern Wyoming. Mr. Cobb made inspections in the vicinity of Mandan during the week.

Mandan, contd.

Horticulture.

Sandcherry-hybrid plums were harvested during the last ten days, and were followed by Sapa and Compass. All are valuable fruits for this region, being prolific and of good quality for household purposes, especially the Sapa. Other plums ripe at this time of writing are Ozyia, Cree, Ojibway, S. P. I. #36607, and various types and selections of the native wild plum.

Everbearing strawberries are continuing to ripen, and also a few of the raspberries.

Several selections have again been made of tomatoes, and will be continued for a few days. The ear to row selections of Golden Bantam sweetcorn proved quite promising and several new selections were made for future work along this line.

The acre-garden is continuing to yield well, especially of tomatoes, cabbage and sweet corn. The extreme heat of the last week with no rain for a month, is telling on the various crops; however, and some will be a failure if relief does not come in the near future.

Several thousand plum and apple varieties on sandcherry and other hardy native stocks, intended for testing out at various places in the Northern Great Plains area, were budded during the week. Considerable cultivation and weeding of field plats is still necessary.

NORTH PLATTE:

The drought from which crops have been suffering for the past two weeks, was somewhat relieved by .71 inch of rain on the 17th. Corn has been damaged to a considerable extent. The differences in appearance between corn on spring or late fall plowing and that on early fall plowing are quite striking:- That on early fall plowing shows but little injury while the spring plowed and late fall plowed plats are badly fired.

Three days of the week were spent by the writer, on the Potato Tour conducted by Agriculture College and the Nebraska Potato Growers Association through several western counties of the state. Present indications are that yields this year will be good. The acreage of the seven western counties is estimated at about 60,000. About 90 per cent of the acreage is planted to the Triumph variety. About 7,000 acres on dry land have been listed for certification.

TUCUMCARI:

Very little change has occurred in Station crops the past week, although the lack of moisture is gradually causing the plants on many plats to die. Two showers totalling .22 inch were received, making the total for the month to date .66 inch; total past eleven weeks, 3.48 inches. Thursday evening, when the Station gauge showed .11 inch, the gauge at Tucumcari, three miles away, showed .98 inch. Local showers have fallen in numerous parts of the country the past week, in some cases practically saving the crops.

Tucumcari, contd.

Range conditions in Sierra county, southwestern part of the state, are serious, it being reported that cattle are dying by the hundreds, while those surviving are too feeble to stand shipment. Torrance county, one hundred miles southwest of Tucumcari, is also suffering from a serious drought. It is said the Mexican bean crop of that county is practically a failure. Considering the state as a whole, it is thought this season is the most disastrous in many years. Weather conditions are not only about as serious as in 1918, but farmers and ranchers are also deeply indebted, having had no opportunity to pay off debts incurred in 1916, 17 and 18, three dry years.

The wheat crop on the plains to the southeast was very light. Local millers are paying 90 cents, but report very little wheat coming to market.

The last cultivation on practically all crops was made this week, most of the cowpeas were hauled and a few early date plats were cut. Brabham cowpeas are ripening much later than other varieties and a good rain even at this late date might result in further growth. One man has been kept in the fields the past week, practically from sunrise to sunset, shooting blackbirds, which have threatened to take the crop.

Maximum temperature 95, minimum 62; precipitation .22 inch. Evaporation, 2.092 inches. Average wind velocity, 4.2 miles per hour.

WOODWARD:

The past week has been hot and dry with no precipitation. Crops have been making very rapid growth and practically all of the milo, kafir and broomcorn on the D.L.A. plats is headed. Most of the crops apparently are not suffering much from lack of moisture yet but probably will soon. Some of the cowpeas in the Cowpea Variety Tests are about ready to be cut for hay. About 1500 lbs. of grapes* have been picked during the week, together with some peaches and plums. Other work during the week has consisted of cutting sowed feed for hay, discing orchard and vineyard, discing wheat ground, some fencing on the Dairy quarter, and cultivating with five tooth cultivator where crops were too high to be cultivated with other cultivators.

Mr. Hallsted and Mr. Gettey of the Hays station, called at the station on Wednesday, the 16th, and on the 17th left with Mr. E. F. Chilcott for Lawton and other points south. A number of visitors from town and surrounding points visited the station during the week.

Maximum temperature 99, minimum 65; precipitation 0.

* Best individual vine yield was 56 lbs. variety - Beacon.

WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

AUG 26 1922

REPORT FOR WEEK ENDING AUGUST 26, 1922.

AKRON:

Fall plowing of rotation plats was finished the fore part of the week. Ground plowed better than is usual for this region at this time of the year. Threshing was resumed on the Cereal Project on Tuesday. A light rain interfered with resumption this morning, so this work will not be completed until next week. Both winter wheat fields of the sheep rotation series were spring-tooth harrowed and seeded the last part of the week. Nursery threshing has been in progress practically all week. Work was commenced yesterday on a trench silo to be used in connection with the sheep experiment at this station. This section is badly in need of rain to enable the winter wheat crop to be put into the ground under favorable conditions.

Mr. C. W. Warburton visited the station the first of the week. Mr. E. J. Maynard, of the State Agricultural College, was here Thursday in the interests of the co-operative sheep experiment.

Maximum temperature 94, minimum 57; precipitation .34 inch.
The past 7 days have registered a maximum of 90 or above.

ARCHER:

The week has been rather humid with frequent local showers, Thursday being the only day during which there was no precipitation. However, the showers were light and have not been sufficient to keep the sunflowers from wilting.

The work at the station has consisted of harvesting and putting up hay. The wheat on the Dry-Land plats was harvested August 23 and the winter wheat was seeded August 25. The fallow plats were in prime condition but the cropped plats were not so good. The corn crop is in good condition and in most instances high yields will be secured. Preparations are under way for the putting up of silage and threshing of small grains.

Maximum temperature 86, minimum 51; precipitation .32 inch.

ARDMORE:

The weather throughout the week has continued dry and hot. There has been no precipitation since August 3, and during the present week temperatures have been unusually high and high wind velocity.

Corn and cane crops are drying up very rapidly. There will be practically no production of corn, at least not from the standpoint of grain. About half of the rotation corn plats have matured and were harvested this week. Harvesting of corn for silage will begin early next week. The yield is expected to be from one to two tons of green feed per acre. Cane will make a much better crop this year than corn.

Native pastures are drying up very rapidly. The growth of grass this year has been much below normal. There is a shortage of cattle in the country, however, and it is not expected that there will be any difficulty in getting grass cattle ready for market.

BIG SPRINGS:

Another week has passed without bringing any relief from the dry, hot weather which has prevailed here during the past month. All grain sorghums and corn have ripened prematurely because of the dry weather, and as a result a greatly reduced yield of grain will be obtained.

All of the corn, feterita, and some of the milo in the D. L. A. field were harvested this week. The feterita had not suffered so severely, and will make a fair yield. The corn has matured but very few ears. The cowpeas in the rotations were hauled in this week; the twenty-two plats averaged nearly a ton of cured hay per acre.

Cotton is opening up quite rapidly now, and many farmers will start picking next week. The yield throughout the county is being estimated at one-fourth to one-third of a bale per acre. The bolls which have set on up to date will not justify more than one-fourth of a bale per acre.

Messrs. E. F. Chilcott, A. L. Hallsted, W. M. Osborn, and R. E. Getty were station visitors on August 24 and 25.

Maximum temperature 100, minimum 67; precipitation 0.

COLBY:

Weather remained hot and dry during the week. Milo and kafir on fall plowed plats are drying up considerably; while other plats have a few dry spots. Fields of sowed sorghum are drying out fast and a great many of them have been harvested. Milo has the seed well formed. Feterita and kafir are not as far advanced for the same date of planting. The soil is dried out completely as deep as it was plowed and practically no precipitation has fallen to help settle the plowed ground. All plowed plats were packed soon after plowing, however.

Corn is drying badly, especially that on the fall plowed ground. A few plats will be cut the first of the week. Some of the corn varieties have completely dried up. The less than an inch and a quarter of rain which has fallen this month has been so distributed that no benefit is noticeable from it.

Maximum temperature 100.5, minimum 58; precipitation 0.

The last part of the week has been cooler than the first half.

DALHART:

The past week has been the hottest week this year. The temperature ranged close to the 100 mark with a maximum temperature of 101 which was the highest recorded this year. The day previous to the 101 registered 100½ which was high up to that time. The hot winds during the week have done a great deal of harm to farm crops in this section of the Panhandle. The rain that occurred last week did more damage than good since the hot winds continued. The crops that were not firing before have fired since the rain.

A number of farmers have visited the station this week to see how things are holding out. They report that their crops have suffered so badly that they expect little above a failure. They thought the station crops were holding out exceptionally well. The crops on fallows are making a good showing at this time. Some of the varieties are making an exceptionally good showing during these dry times.

Dalhart, continued:

Work during the week was, as follows: A septic tank was constructed just north of the mess house to replace an old tank that was built there originally, under poor construction. The plats that were cropped to cowpeas and are to be seeded to winter rye this fall were prepared for planting. Two varieties of cowpeas were harvested about the middle of the week. The cowpeas are making an excellent showing in the variety test this year. They have made a favorable impression on several of the visiting farmers. All roadways were mowed Thursday of this week.

The damage to the field crops from birds will run high this year. One man has been busy shooting birds from the plat fields and variety plantings all week and in spite of this the birds are making a big inroad on the grain. The damage will have to be estimated before the crops are harvested; some will run as high as 20 per cent and others possibly a little higher on the early dates. One farmer visitor last evening stated that the birds were taking most of the small crop of grain he was able to grow. Birds are worse than usual this year all over this section of the country.

Maximum temperature 101, minimum 62; precipitation 0.

DICKINSON:

Threshing of wheat, oats and barley on the rotations was finished August 19. The Kubanka variety of wheat, which is grown on the plats, averaged 30.0 bushels, with a maximum of 37.1 and a minimum of 19.8. Oats averaged 72.7 bushels with a range from 87.7 to 58.0. Barley averaged 43.6 bushels.

Tillage methods averaged as follows:

	D.C.	S.P.	F.P.	Fallow	G.M.	Sod
Wheat	33.0	29.2	28.3	30.2	26.4	---
Oats	70.7	73.3	71.3	71.6	75.9	75.3
Barley	54.0	42.1	35.5	44.3	---	---

Flax in Rotation 12 went 17.5 bushels.

This is the best crop harvested since 1915. During the sixteen years of station records wheat and barley yields have been exceeded by the crops of 1915, 1909 and 1907, and oats by the crop of 1915 only.

The past week has been spent almost entirely in threshing wheat, oats, barley, flax and millet varieties for the Cereal Office. Wheat variety yields ranged from 34.9 bushels for the best durum to 20.3 for the lowest common. Among 20 durum varieties tested in the larger plats, six of the highest were Kubanka selections made at this station. Marquis and Redsask were the best common wheats, each averaging 31.6 bushels. Kota was third with 31.0 bushels.

Winter wheat planted in standing corn was the best ever harvested here, the best variety averaging 44 bushels. Where planted on fallow the crop was almost entirely lost during the winter.

Dickinson, continued:

Threshing on farms in the locality is just started. Yields of the best fields reported range from 22 to 25 bushels. The quality of the wheat is not as high as it has been during the recent dry years. Some of the fields contain considerable yellow berry, the worst samples having as much as 40 per cent. None of the wheat at the local elevators has graded Dark Northern.

GARDEN CITY:

The past week has been hot and dry. Milo on most of the plats is beginning to ripen. Most of the kafir is in full head. Corn is firing badly, especially on plat A of the M. C. series.

The cowpeas were put up for hay during the week. The average yield for the eleven plats was 1924 pounds to the acre. Blackeye was the variety grown this year.

Several of the fallow plats were double disced this week.

The first planting of winter wheat, in the date of seeding test, was made on the twenty-first. The seed-bed was dry and rather loose so germination will likely be slow.

Maximum temperature 105, minimum 64, precipitation 0, evaporation 2.7 inches; average hourly wind velocity 5.7 miles.

HUNTLEY:

Cooler weather with light showers has revived corn and sorghums to some extent though sunflowers and other forage crops remain wilted. Field work has consisted of harvesting miscellaneous crops, soil sampling and cleaning up the fields preparatory to the Farm Picnic, which is being held at the station today, August 26.

Maximum temperature 94, minimum 46, precipitation .27 inch.

MANDAN:

Horticulture.

Fruit and vegetables have suffered somewhat from the dry weather during the past few weeks, but yields still continue to be close to or above the average. Opata, Sapa, Cree, S.P.I. plum No. 36607, and some wild native seedling plums have been picked, and Compass cherries are ready for picking. The effects of the dry weather are most evident under conditions of close spacing. Compass cherries are developing good size and quality where they have plenty of room, but are rather small and poor when planted under a system of close spacing. Some of the new plums from the State Fruit Breeding Farm in Minnesota are now ripening, and aprear very promising. If they prove hardy, they will undoubtedly replace some of the old standard American varieties.

Mandan, continued:

A number of selections of native plums have been made during the week, and a few have been propagated for further testing. An early maturing seedling of Wealthy, with crab characteristics, was found in the seedling testing blocks. It resembles Florence to some extent, but is much earlier, and may prove worthy of propagation.

Budding has been completed, about 8000 buds having been inserted this year. The most of this material will be sent out to farmers for co-operative testing. Farmers having well established shelterbelts, to afford wind protection, will be chosen.

Vegetables continue to do well. The celery has been heeled up, the shell beans pulled, and onions are ready for harvest. The second planting of sweetcorn will do very well this year. Further selections have been made in the tomato breeding plats.

The lawns have been given their last irrigation for the year. Also roads on the grounds have been weeded and trimmed.

NORTH PLATTE:

A rain of .60 inch occurred early in the week. This revived corn to some extent, and alfalfa is starting a good growth following the removal of the third cutting. It was observed on a trip to the eastern part of the county several days ago, that in spite of fine prospects early in the month, very little corn will be harvested this year. Much of it is being cut for fodder.

The station force began filling silos yesterday.

TUCUMCARI:

With no break in the drought and with the highest temperatures recorded during the season, the past week has been unfavorable to crops. Milo is ripening rapidly where heads have formed and cutting will be begun the coming week. A number of May 15 date of planting plats have been cut, as well as a few variety plats. Rice birds have been very bad on the station this season and it was necessary to keep one man in the field from sunrise to sunset for a time; at the present time the birds seem to have been bluffed out.

Mr. J. R. Horton, of Wichita, Kansas, arrived Monday by auto and spent three days examining the corn on the Station. Ear worms, cut worms and a stalk borer were found, all doing extensive damage. Fields in Quay County were examined and these same pests were found, although doing much less damage than on the Station. This was accounted for by the fact that all fields examined had received more rain than the Station, so had made a more rank growth. Apparently the borer found was the Diatraea lineotata, very similar in most respects to the larger corn stalk borer and the cane borer.

Mr. Horton left Thursday, driving west to Las Vegas; from there he will drive north to La Junta, thence east to Wichita. The chinch bug has been reported as far west as central New Mexico and it is Mr. Horton's intention to try to determine the western edge of the infested area.

Messrs. E. F. Chilcott, Osborn, Hallsted, and Getty arrived here Friday from Big Springs, Texas, and expect to drive to Dalhart tomorrow, the 27th.

Maximum temperature 102, minimum 66; precipitation 0. Mean for the week 84.5. Evaporation 2.762 inches. Average wind velocity, 4.9 miles per hour. Precipitation past three months 3.48 inches.

WOODWARD:

We have had another week of very hot, dry weather, the maximum temperatures from the 21st to 25th being 100, 107, 108.5, 109, and 110, with only .07 inch precipitation since August 8. Crops are doing surprisingly well considering the heat and lack of moisture.

Milo on most plats is practically headed, and kafir is beginning to ripen, cowpeas are shedding some of their leaves and showing more effects of the dry weather than they did during the other dry spell we had. The berries on some of the varieties of grapes are shrivelled but some of the other varieties are holding up very well.

During the week several hundred pounds of grapes, and some peaches, plums, and apples were picked, also watermelons and canteloupes. Other work during the week consisted principally of fencing, mowing alfalfa on account of web worms, which together with the dry weather practically ruined the crop. Several varieties of cowpeas in the cowpea hay variety test were cut early in the week.

C. W. Warburton, connected with the Cereal Office and J. H. Parker of Manhattan, were visitors at the station on the 25th.

Maximum temperature 110, minimum 64, precipitation .04 inch; evaporation 3.048 inches.

NOTE:

Owing to the shortage of funds under "INCREASED COMPENSATION", the future granting of the $240.00 bonus to unskilled laborers has been discontinued by the Bureau. This, however, will not effect such unskilled employees who are at present receiving the bonus.